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CRITICISMS AND DISCUSSIONS.

DEATH AND RESURRECTION.

"What matters it if searching mind sublime
Would doom the lights of Heaven to die;
If hosts of stars were swept from sky
As golden harvests by the scythe of time?
Thy righteous thoughts and what thy love conceived,
Thy beauteous dreams are not by time impaired;
They grow a harvest from that scythe-man spared
And treasures in celestial stores received.
Go forth, Humanity, on journey blessed,
Rejoice, eternal life dwells in thy breast."

V. Rydberg.

(From the Swedish by J. E. Fries.)

Death and Resurrection is the title of a remarkable book just published by The Open Court Publishing Company. Its author, Gustaf Björklund, who died in the year 1903, was a philosopher with a marked influence on modern thought in his native country, Sweden. As an ardent worker in the international peace movement he is known also far outside that country. He never occupied a professor's chair nor any official position whatsoever, but devoted his entire time to quiet studies and the compilation of a series of thoughtful volumes. Young, liberal Sweden has drawn heavily upon the funds of undogmatic wisdom that this unassuming thinker accumulated in his several books. It is our confident hope that this, his last work, will prove equally valuable to an interested public on this continent.

The most noteworthy characteristic of Björklund's method of treating his subject is the great thoroughness with which he investigates the arguments of his opponents. After reading the present volume we cannot for a moment doubt the statement in the author's preface that his studying of the physical and chemical foundations of modern materialism alone required his exclusive attention

for several years. It may be well to remember this at a first reading of the book—if read once, it will surely be read over again—because the critical student will meet many statements which he by no means is ready to accept without previous proofs. We must not suspect the clear, logical intellect of Björklund to have overlooked this, and if we only keep our point in mind we shall invariably find sooner or later the desired demonstration. The reason for this strange arrangement is to be found in the dramatic construction of the book. Björklund gradually works up to a climax and is not inclined to give away his thunder too early.

In giving a résumé of *Death and Resurrection* it may be advisable, therefore, to turn the barrel upside down, so to speak, first pointing out the aim of Björklund and subsequently endeavoring to follow the line of argument by which the author proves his thesis.

Björklund is an idealist, yea, a spiritualist. And yet he gives such convincing proofs of the impossibility of any thing that may be classified under the heading "spirit-communications," that Sir Oliver Lodge and Prof. J. H. Hyslop must turn from him in scorn. On the other hand he differentiates between the material and spiritual world so distinctly that any one who, like Dr. Paul Carus, makes the, in the writer's opinion, futile attempt to reconcile the two, finds in him an equally decided opponent. The publishing of the present volume, therefore, reflects great credit on the part of Dr. Carus and is a new monument among many to his openmindedness and unflinching desire to bring every possible argument against his philosophy under discussion.

A large part of *Death and Resurrection* is naturally devoted to the demonstration of the contrast between life or life-force on one hand, and physical energy in all its forms on the other. Here Björklund and Dr. Carus differ radically. True, even the latter is obliged to concede that life-force is a very unique form of energy. In his article "Life and the Soul" (*Monist*, April, 1908) he says, that the process of life is a phenomenon *sui generis*, more complicated than any purely physical or chemical process; "Vitality or the function of life is a kind of energy of its own. In this sense we may retain the old idea of vitalism in a modernized form and classify life by itself"; and again: "We would say then that the function of life is a manifestation of energy which forms a category of its own. It is as different from physical processes as chemical combinations are different from purely mechanical movements—or even more so." But to take the full step and acknowledge that life has no roots what-

ever in the material world he will not, he cannot, because a spiritual world does not fit into his philosophical system. It is necessary to the theory of Dr. Carus and to that of pure materialists alike, that the formation of a Homunculus be possible in theory if not in practice.

With no other resources than the material world to fall back upon, how then did life grow out of matter and physical energy? We face again the time-worn question of *generatio aequivoca*. If spontaneous generation could be proved without the shadow of a doubt to be impossible, then, surely, we must look beyond the boundaries of the visible world for the origin and substance of life. *This is what Björklund does in the volume under consideration.*

But first let us see what the materialist, and Dr. Carus with him, has to say on this subject. In this respect the two reason exactly alike. In the article referred to above, Dr. Carus says: "Living bodies consist of the very same materials of which the rest of the world is composed. Chemistry has resolved matter into some seventy elements, and the elements of organic chemistry are absolutely the same as those of inorganic chemistry. Some of the most unstable and lightest elements play the most important part in the function of life, for we may say that oxygen, hydrogen, nitrogen and carbon are the most essential factors in building up living organisms." . . . "They [the naturalists] have succeeded in producing organic matter, the first substance thus secured being urea, but they have not succeeded in building up an organism, and there is scarcely any hope for success in producing the smallest living bacterium. This repeated failure has caused mystics to claim emphatically that life is a mystery that never can be solved, but in fact it only proves that the original life-forms are too small to come as yet under our notice. If we only consider that the smallest fungi are about as complicated in comparison to atoms, as the tree is in comparison to a cell, we will understand that we need better microscopes than are now at our disposal before we can discover the most primitive form of life.

"Theoretically considered it should not be impossible to reproduce life. The tendency of certain elements to organize into life-plasm is in itself no more mysterious than chemical affinities or the formation of crystals.

"There is no consistency in the methods of those who see nothing extraordinary in purely physical processes but are overawed when contemplating the basic fact of all biological phenomena, the

formation of living structures. There is no less reason why the simplest life-forms under favorable conditions should not organize certain elements into the structure of life-organisms than for vapor to assume the form of snow crystals in the air at a given temperature, and neither process is theoretically incomprehensible. Both are equally mysterious and equally possible."

Consequently, because every organism consists of nothing but the elements to be found in nature and because each and every one of its functions is performed according to natural laws—therefore nature has of its own accord built the organism. Why have we not discovered nature in the act of doing this? Because our microscopes are not powerful enough. When did, or do, such wonderful combinations of the elements take place? Under favorable conditions. What would constitute favorable conditions? No answer. The spontaneous formation of the snow crystals and of the as yet undiscovered most primitive forms of life is equally mysterious and equally possible. The first part of this last statement is true, the second false, as we presently shall see.

This way of reasoning is so characteristic of the materialist that Björklund has found the same lines of thought almost verbally given in Büchner's book, *Kraft und Materia*, and he has consequently answered Dr. Carus long ago.

We might just as well, says Björklund, make the following statement: No atom in a steam engine differs from similar atoms in surrounding nature; every movement of the engine is performed in the strictest accordance with natural laws; therefore nature has spontaneously built the steam engine without the interference and guidance of a supernatural being, here man. It is of no use to argue, that nature first developed man and through him the engine, because even Dr. Carus admits that the most primitive form of life also is fundamentally constructed as a steam engine, that is, consists of organized matter. "The terms 'living' and 'organized' are synonymous," says Dr. Carus. The only difference is that matter is so much more crudely organized in the engine than in the living units that constitute the organic cell. Little would it profit us in our endeavor to find the truth or non-truth of *generatio spontanea* even if our microscopes were powerful enough to allow us to observe the individual atoms or even the corpuscles of which they are perhaps composed.

To quote Björklund. "Even if we were observing with our own eyes the creation of the first organism we would not be able to

say whether it were the result of natural or supernatural forces. The moment our study commenced the mystic act of creation would already have taken place, an act which lies beyond the boundaries of research, and which we never shall be able to penetrate however minute or comprehensive our observations."

And even if we could scientifically prove that every single being on earth at present has had parents; even if we could trace life back through endless generations to Lord Kelvin's "moss-clad fragment" from another world, or to Professor Arrhenius's spore, brought to our little globe from some distant star in the universe by the radiation pressure of light, we would still be just as much in the dark as to the origin of life. We would have to extend our researches to every planet inhabited by life to ascertain whether the "favorable conditions" existed there, and if not at present, then perhaps some millions of years ago, or would, (why not?) after some millions of years to come, because one single exception to Harvey's law, *omne vivum e vivo*, will suffice to bring the palm of victory into the hands of the materialists.

This whole method is consequently unsatisfactory. To quote Björklund again: "An entirely different method is here necessary; our endeavor must be to find the innermost cause to the whole series of generations evolving throughout the ages. We must in other words derive Harvey's law from the inner nature of matter itself, show that this matter has such qualities that it cannot, never could and never will be able to produce a single living being. Only then shall we have demonstrated that Harvey's formula is a universal, natural law and then it will be not only our right but our duty to draw its logical consequences."

Now then, why is not life force a form of physical energy, including its every known form, gravity, light, heat, chemical affinity, magnetism, electricity or radio-activity? Why cannot living substance or organized matter spontaneously be formed by inert substance, such as we find immediately on earth and by the spectro-scope in other parts of the universe? Because physical energy tends to *equilibrium*, life force to *unstable compositions*; because inert substance is a *natural product*, organized matter a *product of art*.

Let us consider a moment the truth, meaning and tremendous weight of this argument.

Take for instance the evolution of our own globe. We have been accustomed to think of the formation of the celestial bodies as

a continuous cooling off from the gaseous state to a stage when life may appear, and further to a condition like that of our moon when they become uninhabitable again. According to this view the whole of the universe is slowly approaching a certain end, Clausius's "thermo-death" when all heat is evenly distributed in the form of motion of the smallest particles of matter. Professor Arrhenius remarks, however, that as we know of no beginning of time, such "thermo-death" would long ago have pervaded the universe. He further demonstrates in his wonderful book *Worlds in Making* how the heat swings as an immense pendulum from the suns to the nebulas and from the nebulas to the suns again. Science at present, therefore, does not contradict philosophy in its demand that time must be unlimited in both directions. To the present status of science and philosophy as regards infinity of space I hope to return some other time in the pages of *The Monist*. Never and nowhere, however, has science found the laws of nature or physical energy to operate differently under equal conditions. The same causes are inevitably followed by the same results. If we therefore prove that physical energy never could or can create life spontaneously on our earth, the homogeneity and continuity of the universe as established by recent science, forces us to conclude that more "favorable conditions" have never and nowhere else existed or shall exist.

But the matter of our earth was once as hot as that of the sun, and was then rich in chemical energy. When sufficiently cooled off to allow chemical affinity to act, compounds as poor in energy as the conditions for the moment permitted, were always formed. The substances of our earth are the ashes resulting from violent chemical reactions. Hydrogen and oxygen "burned" into water. And so nature always tends to satisfy even the feeblest chemical affinity and never rests until it reaches perfect equilibrium. Even the decay that takes place, thanks to the water-circulation due to the sun's radiation, is nothing but a more thorough burning of the substances of our earth; that is, the remnants of the elements that did not find their mates in the primeval world-fire endeavor to satisfy their affinity, wherever a compound poorer in energy may possibly be formed. Thus physical energy is always and without exception falling from a higher to a lower level just as infallibly as the running stream. Indeed, the descending water is only another expression of the same natural law. Finally our earth reaches stagnation, as the moon has done before, and it will thus remain a petrified mummy, until a cosmic catastrophe scatters its substance over immense spaces form-

ing parts of some vast nebula that again will slowly form "new heavens and a new earth" as described so admirably by Professor Arrhenius.

During a certain period of this history of our earth, lo and behold, there appear on its surface certain forces which most decidedly oppose the processes of physical energy. Out of the ashes of the original world-fire burnable matter is again formed. The most neutral compounds are decomposed again and new compositions formed which for a time fight successfully against the leveling tendencies of physical energy but finally succumb to the general, powerful law, decay or oxidize again just as the steam engine, when left to the mercy of nature, is dissolved speedily. It is as if the orderly evolution toward equilibrium suffered a temporary check. We say that "life" takes hold of inorganic matter and forces it to enter into unstable, organic compounds. "Life" utilizes nothing but natural laws in accomplishing its wonders. We are able to calculate the tremendous forces necessary to extract the organic carbon from its compounds and we find at once that such energy sources as are available, i. e., the earth's internal heat and the radiation from the sun are utterly unable without "artful" guidance to accomplish the result.

To quote Björklund: "The spontaneous activity of nature's forces, then, go in a direction just opposite to the one necessary for the production of organic substances. And nothing else was to be expected. The products of combustion resemble fallen weights, slack bow-strings, water below the fall, etc. Whereas combustible organic matter might be compared to lifted weights, set bow-strings, water above the fall, etc. If matter has once fallen from a higher to a lower level of energy it can never spontaneously return, especially as it has just lost the necessary store of energy. As impossible as it is for the swift current to turn its course, or for the fallen weight to lift itself, or for the discharged bowstring to set itself again, so impossible is it for the products of combustion spontaneously to turn into combustible substances.

"From this we now draw the extremely important conclusion that all organic matter is a *product of art*, that is, a product which the forces of nature cannot spontaneously produce."

The quality in matter which causes its inability to "turn the current" is called *inertia*. Inert matter cannot spontaneously deviate from its course; a foreign interference is necessary.

In building a living being, life does exactly, only in a more

perfect way, what man does in building a steam engine. Man reduces the carbon in the ore and so does the cell in the chlorophyl. The chlorophyl granules therefore are strikingly comparable to our blast furnaces. But herewith life's quality of being a product of art is not yet fully emphasized.

Let us quote Björklund again: "No effect, whatever its nature, can exist without cause; and further every effect must have sufficient cause. If therefore we have established that natural forces can no more produce organisms than steam engines, we have also proved that these things would never have come into existence if the inorganic forces had been left to themselves. Neither organisms nor steam engines would exist because they have no cause in the material world. The products of art are not only due to other causes but moreover the relationship between cause and effect is different with them from what it is with the products of nature. Every product of nature has its cause in a previous condition of matter. The cause goes before and the effect comes after in time. The connection between cause and effect is so intimate and complete with regard to the natural products that we may trace the series of occurrences backward and forward in time without other limitations than those imposed by a deficient knowledge of the qualities of matter. Such a connection between cause and effect has been termed *mechanical causality* which reigns without exception in the material world.

"Of entirely different kind and nature is the series of causes pertaining to the production of objects of art. In their capacity of purpose, they are themselves the physical cause of all the work that precedes their birth. When the product of art is finally ready the effect has then gone before the cause. Such a connection is called a *teleological causality* in contradistinction to the mechanical one, where the cause always precedes the effect.

"But although the product of art is the nearest cause of its own production it is not the primary one; it is itself the result, not of a cause to be found in the material world, but of a *foreign* interference in the mechanical causality, and points therefore to a supernatural ground which by a closer investigation will be found identical with a living will. The will feels the want of other things than those natural forces can spontaneously produce. Natural products act as incentives on the will, spur it to break through mechanical causality so that physical laws by a judicious guidance may be forced to produce artificial products that better satisfy the desires of the will. If natural laws could comprehend and judge these things they would

consider them all as miracles, whereas, from the point of view of the will, they are so much the more natural as they are exact expressions of the needs and desires of the will.

"But not only the order of cause and effect, even the tie between the two, is entirely different in teleological causality from that in mechanical. While the natural product is an effect that cannot fail to appear, the product of art on the contrary is an effect that primarily never could be expected, because it has no cause in the material world; but further, if it is forthcoming, the tie between cause and effect is so loose, that such a product may be left and will remain in any stage of its production. It may be just commenced, half ready, or nearly completed; be better or worse, be a failure and so on, whereas the natural product springs forth of physical necessity from its cause, and never can be different from what it is.

"Wills and physical forces then stand against each other as two fundamentally and radically different causes. A will may neglect to do what it ought to, may be idle, industrious, undecided; a physical force cannot leave undone what it has to do, can never be called idle, industrious or undecided.

That man is able to produce objects of art we have sufficient evidence in material invention from the simple stone-ax up to the most complicated machines. But if man can create products of art he must himself be a supernatural cause as natural products produce nothing but their own kind. And not only he, but also the beings that build up his organism must be supernatural causes as we have seen that all organic matter *ipso facto* is a product of art."

The sum total of human experience is composed of ponderable matter, measurable energy, life-force and its manifestations in organization, feelings, sentiments and thoughts. The two first items, surely, belong to the material world. They are the only ones that so far have constituted the field of research of natural science, and if Björklund's theory is right, they will forever so remain. The latest investigations into the nature of corpuscles go far towards making us believe that ponderable matter is also nothing but a form of physical energy, so that science will ultimately have to treat *measurable energy* by mathematics only. Will life-force with its manifestations of organization, love, hate, thoughts, etc., ever be laid under the domain of this science, will the results of our individual characters even *in abstracto* be subject to mathematical investigation? However incredible such an outcome may seem, we

were not justified in saying, "Impossible," until Björklund proved the intrinsic incompatibility between physical energy and life-force.

Life consequently has none of its roots in the material world. The form in which this world exists is, negatively expressed, limitation by time and space. Thoughts and feelings just as much as their cause, life, fall outside of these limitations or are immortal. "Immortality, then, belongs to every living cell as materiality to matter." The form too, as defined by Dr. Carus, is immortal for the same reason, but we have seen that nature, left to itself, would never have created one single organized form because the tendency of nature is to tear down every "form." Life appears in forms, but life is primary, form secondary. And how fortunate this is. Form, belonging to an immortal spirit, possesses unlimited immortality, but form, torn from life, is endowed with a queer kind of immortality which ends when humanity ends on earth. And as the final destruction of the world is a scientific fact, all the inhabitants of Tellus cease in that moment to exist. For a man, be he ever so real, does not exist alone in empty space, because there is nothing to react upon him; and Dr. Carus's "form" lives only as long as it is in organic touch with living generations. But I do not see where the reactions upon his form will come from when this globe is uninhabitable, unless the very matter of our earth is so transformed because of its existence that it will enter into different combinations when forming another planet than it would if it never had served to clothe a human being. Widely different of course is the immortality of a spirit unlimited by time and space.

Dr. Carus objects to a dualistic world-system but if he upbuilds his cosmos of physical energy and life force, calling the latter an energy *sui generis*, I for one cannot see why Björklund merits the title dualist more than Dr. Carus. In order to bring unity into the whole Dr. Carus must show the relationship between these two kinds of energy or at least, in order to bring the question under discussion again, overthrow Björklund's proof of their non-relationship. And if the manifestations of both are "equally mysterious" which indeed they are as we have as yet not discovered the fountain of either, why should Björklund's explanation be less acceptable to a rational mind than Dr. Carus's preservation of a form that physical energy never has shown a tendency to create or maintain?

We may suppose that Dr. Carus now admits the impossibility of *generatio spontanea* and accepts a dualism of physical force and life-force but declares both to be phenomena belonging to time and

space. But then his preservation of form suffers the limitation referred to above, and what is more important, his system gives no explanation of the teleological order in the realm of life. A spiritual world that utilizes physical energy to certain ends and as an *evolutionary part* or *side* of its activity, offers on the other hand a satisfactory solution of these problems.

After having established that life is not "of this world" Björklund proceeds to analyze the organization of life, and we come now to that part of the book that has suggested its title.

Björklund has thoroughly studied modern cytology, and in it he finds strong reasons to regard every living cell as being ensouled with individual life in no lesser sense than man himself. Man is an individual composed of lower individuals, the cells, but he is himself a cell in an individual of higher order, humanity. We are able to comprehend in part only those beings next below and next above man: below the cells and above humanity there must be other living units until we reach the unifying soul of all life, the living God. Thus we, and the cells with us, are all living members in God's perfect organism. We are indispensable to the existence of God and He to ours. This does not mean that either man or God is lacking in personal individuality. The self-dependence and yet interdependence between any being and its lower constituents, is very fully discussed by Björklund.

We shall now endeavor briefly to follow this discussion.

Experiments carried out with animals show that the cell organization will remain alive and perform all vegetative processes even if deprived of the direct guidance of the animal soul. And similar observations have been made on men under certain conditions. Thus it is certain beyond doubt that the cells not only execute but, through the central nerve-system, regulate and control a multitude of functions in which the soul does not take part. But just as certain it is that there are many functions which the cells could not perform without the cooperation of the soul. Vision, hearing, smelling, tasting and feeling would be entirely meaningless to the cells without the aid of the soul. The same is in a high degree the case with the motions of the body which also require such a higher guidance. Deprived of its brain, "the dove could fly, the dog walk, and so forth, but the motions were relatively purposeless. The predetermined plan was lacking. The cells could assimilate the food, when brought into the body, but they could not search it in nature. Such action

requires a power of combination that exceeds their measure of intelligence."

"We see consequently that the cells may do without the soul in such functions as are not related to the exterior world, comprehensible to our senses. Here they need the guidance of a higher, more developed intelligence. In the outside world with its more complicated relations the soul is to the cells very nearly what we mean by the word *Providence*. The soul performs in the interest of the cells, such a higher, regulating and guiding function."

Björklund complains that the cells are continually studied from man's point of view but what man may be from the cell's point of view is never thought of: "We do not hereby deny to the old conception all justification. The body is also an organ for the soul. The latter, as experience shows, uses the body for its own specific purposes. But this takes place only to a somewhat limited extent. The incomparably larger part of the soul's work, cares and endeavors are devoted to find means for satisfying the bodily wants. But so far as the soul provides for the necessities of the body it acts as organ for the cells. When man believes that he is running his own errands he is in reality carrying out the missions of those beings that compose his body. These latter demand for their purposes, if not all, yet at least the largest part of the work the soul performs in this world."

Björklund further draws an admirable comparison between the organization of the cells and the organization of mankind, and shows how the cells in their sphere have reached a much higher degree of perfection than man has as yet in his realm of existence.

But let us return to the relationship between man and cells, or which is the same, between soul and body. It is very difficult now to avoid quoting Björklund *in extenso*, and we shall only be able to suggest the author's line of thought and refer the interested student to the book itself for obtaining the demonstration.

The cells and the soul live in entirely separate realms and their constitution is so different that they need not even be aware of each other's existence. And yet a continuous cooperation and intercommunication takes place. The connecting link is *the organism per se*. "From the point of view of the cells, the organism, with its different members and organs, was nothing but the collective expressions of individual wants. Now man comprehends as his needs only the wants of the organs; in other words, the collective wants of the cells are the individual wants of the soul. Experience teaches us that the

soul has no direct comprehension of the cells but only of their organic unions. To prove this it may be sufficient to point out that before the discovery of the microscope man knew absolutely nothing of the existence of these beings, much less that they were the all-governing forces in his own body. But also in other ways we may ascertain that the comprehending power of the soul does not reach beyond the organs. This is apparent from the different significance the physiological processes have for the soul and for the cells. If we consider the most important of them all, our nutrition, and ask ourselves for whom the nourishment is really intended, we find that it is for the cells and for the cells alone.

"The food benefits the soul only if it is utilized by the cells. But the nourishment that the soul craves, does not satisfy the cells. Hunger and satisfaction are not even simultaneous in both, at least not as regards the same food. As a rule the soul comprehends hunger when the cells are satisfied and *vice versa*. The soul's hunger ceases the moment suitable food in sufficient quantity is introduced in the stomach. But this does not help the cells. Because, if the food remained in the stomach, to the satisfaction of the soul, the cells would soon die of starvation. The nourishment in the stomach is of the same importance to the cells as the provisions stored in the warehouse of the community are to the human individuals. These also would die from hunger if they let the provisions remain in the stores. The people must undertake to distribute, prepare and consume the food. Similarly the cells would starve to death unless they prepared the food in their common storage to suit their wants. The nourishment must be transformed into blood through the whole complicated process we call digestion. When this is done the cells are able to satisfy their craving, and simultaneously a new hunger feeling arises in the soul. Although it is the *same food* that satisfies both parties it is the same food in different form, at a different time and in a different mode. We are concerned with dissimilar beings possessed of wants, at once different and yet most intimately associated.

"The connection is not difficult to understand. When the soul comprehends the need of the stomach it is the collective wants of the cells that comes to expression as the individual want of the soul. The different needs receive in different form an identical substance, and this fact is obviously the connecting link between the soul and the cells. We might carry out the same reasoning in regard to the respiration and all the other physiological processes of the body."

"The soul therefore is potentially present in the cells in the form of their higher wants and is consequently developed along with the upbuilding of the body. Only when this is ready is the soul's entity developed. The soul must then comprehend the organism as its particular body when conscious of its own ego, but the cells do not enter into the soul's entity as individuals and are not present as such in man's consciousness.

"For this organic cooperation the soul and the cells need no language, no sign to communicate with each other. It is not even necessary that they are aware of each other's existence. It is sufficient that each party comprehends its own wants and acts for their satisfaction according to its own nature. If they do this, their cooperation through the body receives a simple and at the same time complete explanation.

"But however natural this interaction is, it is nevertheless a wonder above all wonders. The world that exists to the soul does not exist to the cells and *vice versa*. They have an entirely different conception of the realm in which they live. They have different apprehensions, feelings and wants and perform accordingly different functions. But in spite of this they are, as we have seen, within certain limits so intimately connected that these different comprehensions and labors are interlinked with each other, regulating one another as accurately as the wheels in a clock.

"From the relationship existing between the soul and the cells it appears that the former cannot live a life independent of the latter. The soul receives its entire individuality, all its qualities, forces and faculties through the organism built by the cells, which therefore must exist before the soul can exist as the real unity in the organism. This does not mean that the soul is an empty form void of independent substance. Even before the cells have combined into an organic unit the soul is potentially present in them in the form of the wants that force them to upbuild the organism, and this organism is that of the soul, not that of the cells of which each possesses its individual organism.

"But if the soul is potentially present in the cells it is only through them that it can arise to a higher life. We have already shown in another connection that a direct transposition would be useless and meaningless. Endowed with its present organs adapted to earthly conditions, a man suddenly translated into the glories of a higher world, would with seeing eyes see nothing, with hearing ears hear nothing and with feeling senses feel nothing. To compre-

hend what there exists and happens, man's own organism must have undergone a corresponding radical transformation. He must have new, more perfect senses, higher spiritual and bodily faculties, differing from his present as far as the objects in this higher world differ from those on earth. This transfigured body can only be organized by the same beings that build it here in time. The soul is inseparably united with these beings and is where they are.

"Here in time man commences with a cell and with a cell he must begin in a future life. This first cell with which man enters his next form of existence cannot logically be any other than the first dying cell-individual. As no atom, so no elementary unit of the living spiritual body, is annihilated. Viewed from our present existence death cannot mean anything to the departed cell-generations but the cessation of life and activity in the world responsive to our senses. In reality they rise to a higher evolution under different conditions and this evolution must be identical with the upbuilding of the glorified body man shall possess in a future life.

"This form of death and resurrection, natural because it is founded in the idea and nature of the organism, is common to all living beings, and must be so, as they are all built according to the same general plan and therefore essentially subject to the same evolutionary processes. The birth and death of the lower individuals in whole generations is known to be a universal phenomenon in every organism."

"If the soul enters as a real part in every individual cell it does not belong differently to the first generation than to the last, or to the whole series of intermediary generations. But here in time man lives only in the generation existing at the present moment. The generations that in the past successively formed the spiritual substance of his body have already gone out of time and those that are coming have not yet made their entrance. Man's entity is thus split or distributed upon a series of successively existing moments each of which contains only a certain limited part of the organism, and the latter has therefore in reality a far broader extent than is seen at present."

It now only remains for Björklund to treat the highly philosophical problem, why living parts in an infinite being must undergo an evolution in time. After having pointed out that his theory of death and resurrection necessarily includes the belief in man's pre-existence, and after further having emphasized the difference between his conception and those older creeds which consider man as

living a life *separate* from that of God, Björklund continues in this connection:

"It is the perennial honor of Sweden's greatest philosopher, Christofer Jacob Boström, to have satisfactorily explained this extremely difficult and complicated question. He has shown that man, exactly on the supposition that he is an eternal part of God's being, requires and must go through an evolution in time. According to Boström religious intuition has found the truth that man is an eternal idea in God, a living member in His organism. But Boström has also understood and considered the difference implied in thinking of man as a member in God's organism and in thinking of this member as living its independent life. In the former case man possesses the same qualities as God; in the latter, these qualities with corresponding limitations.

"For an illustration of how all limited beings are incorporated in an absolute personality, Boström likes to fall back on the numerical system. Spiritual beings form a series, as it were, of lower and higher entities, where the latter contain the former pretty much as higher numbers contain the smaller."....

"But if Boström had lived to study modern cytology he would have found a more adequate comparison within man's organism, and one that perhaps in several respects would have modified his conception of the world of divine ideas.

"God is related to man, as man is, not to the cell, but to the lower units of which the cell is composed. Between God and man there is at least one other organism that we know of, namely humanity. But if we overlook this and for simplicity's sake imagine the relationship as that of man to the cell, it should be evident from what has been previously said, that man is and must be something else to God than he is to himself.

"To God he is what the cell is to man, a living part in His organism, and in this capacity he possesses all the perfect qualities of that organism. Living his independent life, man is in the same position as the cell in his own being, when the cell is thought of as living the life it is confined to by its less perfect organism.

"Although limited to that life the cell may literally be said to be man's image—but an image of a very singular kind. The cell does not reproduce man's traits as does a photograph or a statue, but within its lower realm it mirrors the fundamental qualities of the original on a very reduced scale.

"These limitations cannot be conceived by the cell as such be-

cause they are natural to it and belong to its entity. The cell is and must feel itself as perfect in its realm as man in his. Only if the cell could compare its condition with man's these limitations would become apparent to it, and such a comparison the cell really undertakes within certain limits. Into each feeling of want enters a comparison between the possessed and the desired. In the higher wants then, that drive the cells to upbuild man's organism we have a manifestation of such comparing power of the cell. Experience shows that the cell may live in a veritable natural state, but it is also, because of the presence of the soul in its innermost being, capable of a high culture, for the development of which it receives constant impulses and stimulations from the soul.

"In the same sense man may be said to be the image of God. Living in the world and in the natural state, to which he is confined by his relatively imperfect organism, man has the qualities of God with corresponding limitations. But even in this state he feels the spirit of God present in him because he is an original part of God's own organism. In his conscience and his religious feeling man not only comprehends distinctly the presence of God in his inner being but constantly receives also impulses, incitements and inspirations to develop that perfect life and heavenly kingdom, of which he is called by his high origin and divine birth to become a citizen.

"What the conscience and the religious feelings are to the will, the logical laws of thinking are to the reason, and in the latter man finds God again as immediately present as in the former. Indeed the logical laws are the form in which God himself exists.

"Because of God's presence in the eternal laws of our thinking man is able to appraise himself and his condition with an absolute measure and he can in this way obtain a certain knowledge of God's world and of his perfect qualities. He has only to abstract all wants and limitations from such qualities as have a positive content, because lack of want is perfectness."

In the following comparison between the finite and the infinite Björklund rises to a truly poetical height, but we must spare this part to a reading of the book itself.

"In this light, in this perfectness, man is a part of the divine entity. This life in God's eternal consciousness is man's primary and original existence. Only in a secondary meaning is he a self-existent personality, and is then no more identical with God than the cell is with man.

"Man as an entity for himself must have the natural limitations

of the part. Conceived by God man is eternal in the divine sense, but conceived by himself man's eternal life is clothed in the limitations we call time. The eternal was a constant present without beginning or end, without past or future. What is present to man must suffer these limitations; in other words, man must be born, must go through an evolution, or what is the same, become to himself what he has been eternally to God. In this respect man's relation to God may be compared to the relation of a newborn child to its earthly father. To him the nature and scope of the child is perfectly clear, but the child is unconscious of it and must awake to an understanding thereof, that is to say, must become to itself what it already is to its father.

"Living beings form a continuous series in the absolute organism. This series is such that the higher beings form the conditions and supports of the lower. This connection must be entirely reversed during evolution itself which naturally proceeds from the lower to the higher. In time therefore the generation and development of the lower beings must precede that of the higher. We have also seen that the evolution of the former is identical with the up-building of the organisms of the latter, and we understand now that the whole process *must* essentially follow the course which, as we have previously shown, it does in fact actually take.

"It is further the inherent idea of time that man's eternal entity cannot appear whole and undivided. He must plot it out along a series of successive moments which make room for only one cell-generation at a time. As the cell's entity again has a less comprehensive content than man's, its lifetime must be correspondingly shorter."

* * *

Dr. Carus says in a letter to me that he does not see how Björklund's theory, interesting as it is, can be of any special value to religious or emotional life. A strange statement! Altogether apart from the question, whether it comes nearer truth than that of Dr. Carus or not, it first of all grants individual immortality to all living beings, whereas our life only lasts as long as humanity exists on earth according to Dr. Carus, as far as I can see. But of a widely greater emotional value is the relationship between God and man, which it intimates. If man on a small scale acts as Providence for the myriads of cells that compose his organism, an almost magic light is at once thrown on numerous questions which we but dimly understand from our point of view as cells in a higher organism,

but which we easily comprehend when considering ourselves the living unifying souls of communities of lower individuals. No warm prayer of an assembly of cells is unheard. The hunger feeling is satisfied if all the members do their duty at the soul's command. The pain in the finger speedily starts the soul to bring relief. The close interdependence between all the individuals in the ideal socialistic state organized by the cells in the body of man, is set forth, for instance, in the suffering of the head when the blood circulation in the feet ceases to function properly; this, to the utter astonishment of the communities in the head who are aware of no fault of their own. An "earthquake" takes place when the soul directs the surgeon's knife to cut deeply into an organ, thereby prematurely it would seem bringing this existence to an end for thousands of innocent individuals who cannot possibly see the "divine" reason; and a scientist among the cells would find no fault with the "natural" course of the catastrophe; the terrible wedge that brought the disaster, obeyed nothing but known natural laws. And so the parallel may go on almost *in infinitum*.

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PLATO'S "IDEA" AND ARISTOTLE'S "ENTELECHY."

Plato's "Idea" was in reality the idea of God, the Creator, and not of his finite creatures who in all their sciences, as Kepler and Agassiz truly say, "only think God's thoughts after Him." "Ideas" belonged before creation, to God's foreknowledge and foreordination.

Aristotle justly complained that Plato did not connect his "ideas" with actual things. This was the missing link, which undermined his philosophy. Only a personal God can connect fore-ordination with actual existence.

Aristotle "felt after," if he did not fully reach, God, in his doctrine of the Entelechy (*ἐντελέχεια*: the holding, or completing, *ἔχειν*, of the end, *τέλος*); i. e., the complete actualization of an existing thing by the fiat of God, as contrasted with the mere potential idea or possible existence of it in the foreknowledge and foreordination of God before the work of creation.

Both Plato and Aristotle were, like all men, limited and like all since Adam, fallen. Yet they were intellectual Titans, struggling like Hercules, to tear asunder the coils of the serpent which binds depravity. Both saw as through a glass darkly; saw men, as trees,